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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,179	11/29/2001	Barrett Comiskey	H-312	7982
26245	7590	01/25/2005	EXAMINER	
DAVID J COLE E INK CORPORATION 733 CONCORD AVE CAMBRIDGE, MA 02138-1002			NGUYEN, CHANH DUY	
			ART UNIT	PAPER NUMBER
			2675	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/683,179

Applicant(s)

COMISKEY ET AL.

Examiner

Chanh Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,9-12,14-20,22 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,14,16,19 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,9-12,15,17,18,20 and 31-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. The amendment filed on September 13, 2004 has been entered and considered by examiner.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 31-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Markin et al (U.S. Patent No. 3,700,802).

As to claim 31, Markin discloses an electronic display comprising an electro-optic material (nematic liquid crystal, electroluminescent, gas plasma; see column 2, lines 60) having a plurality of pixels (e.g., pixel 13 or 42), a photoconductor (49) disposed adjacent the electro-optic material (display cell 13 or 42). Markin teaches and a plurality of light source (70) associated with the photoconductor (49) and selectively operable to switch the photoconductor between a conductive and a non-conductive state (see column 4, line 45 through column 5, line 7). Markin teaches the light source being arranged as a series of elongate rows, each elongate row defining at least one row of pixels of the display (see Figures 4-9 and column 7, lines 7-16, lines 46-51).

As to claim 32, Markin teaches light valves (light pipe 58) disposed between the light source (70) and the photoconductor (49) and arranged to control transmission of light from the light sources (70) to the photoconductor (49).

As to claim 33, Markin teaches the light valves being arranged as a series of elongate columns (light pipe 59) crossing said elongate rows, said light sources (70) and light valves (59) together defining a two-dimensional array of pixels in the photoconductor (49).

As to claim 34, Markin teaches having an electrode (45) on the opposing side of the electro-optic material from the photoconductor.

As to claim 35, Markin teaches the display further including means for applying different potentials to differing ones of the elongate elements of the electrode (see column 7, lines 51-55).

As to claim 36, Markin teaches the light valves are arranged as a series of elongate elements extending parallel to the elongate light source (see Figures 4-9 and column 7, lines 7-16, lines 46-51).

As to claim 37, Markin shows in Figure 1 elongate elements of the light valves 920) differ in width from the elongate light source (23) (i.e. light source 23 larger width than light valve 20), such that of one of the light valves and light sources are content within the area of one of the other of the light valves and the light sources (i.e. each of light valves and light source in Markin has same area to each other, thus one should be within area of another).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, 9-12, 17-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson (WO 97/04398) in view of Markin et al (U.S. Patent No. 3,700,802) .

As to claim 1, Jacobson discloses an electronic display (10) comprising an electro-optic material (i.e. electrochromic, LCD etc; see page 7, lines 23-30) having a plurality of pixels (120). Jacobson teaches separate first, second and third sets of addressing means (i.e. columns and row electrodes in first page, second page and third page) for addressing said pixels (i.e., each of pages has its own column electrodes 210 and row electrodes 230 for addressing the pixels 120); see Figures 2A-

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3 and page 5, lines 10-14, page 6, lines 20-31. Jacobson teaches each of said pixels (120) being associated with one addressing means (i.e. one of addressing pages) in each of the three sets (i.e. at least three page addressing means), such that any specific pixel of the display can be addressed by application of signals within predetermined ranges (i.e. one page) to each of the three addressing means associated with said specific pixel (120) (see page 5, lines 10-15).

Jacobson teaches at least one of the addressing means including a photoconductor (760) and a light source (e.g., electroluminescent 780 or optical fiber 802) associated with the photoconductor and selectively operable to switch the photoconductor between a conductive and a non-conductive state (see page 21, lines 4-23). The only different between Jacobson the claimed invention is that Jacobson teaches a single light source while the claim requires a plurality of light source. In same field of endeavor, Markin teaches a plurality of light source associated with a photoconductor, the light source being arranged as a series of elongate rows, each elongate row defining at least one row of pixels of the display (see Figures 4-9 and column 7, lines 7-16, lines 46-51). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have substituted a plurality of light source as taught by Markin to a light source of Jacobson so as to provide the faster response characteristics with light scanning control (see column 7, lines 66-67 of Markin).

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As to claim 9, Markin teaches a light valve (e.g., light pipe 58) disposed between the light source and the photoconductor and arranged to control transmission of light from the light source to the photoconductor ; see Figures 4-9.

As to claim 10, Markin teaches the light valve including a polymer-dispersed liquid crystal (see Figure 7 and page 7, lines 23-25).

As to claim 11, Jacobson teaches the light source including an electroluminescent material (see page 21, lines 11-15).

As to claims 12, Markin teaches light valves being arranged as series of elongate columns crossing the elongate rows (see Figures 4-9), the light source and light valves together defining a two-dimensional array of pixels in the photoconductor.

As to claim 17, Jacobson teaches the electro-optic material comprises an electrophoretic medium (see page 30, lines 45-47).

As to claim 18, Jacobson teaches the electrophoretic medium being an encapsulated electrophoretic medium (see page 30, lines 46-47).

As to claim 20, Jacobson teaches the electro-optic material operates by principle of one of the following: rotating bichromal objects, electrochromics, or suspended particles (see page 13, lines 4-11 and lines 32-33).

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson in view of Markin, as applied to claim 1, and further in view of Drzaic (WO 99/53373).

As to claim 15, note the discussion of Jacobson above, Jacobson does not mention three sets of pixels arranged to display different colors. Drzaic teaches having three sets of pixels arranged to display different colors (e.g., R, G, B) (see Figures 5-8). Combining addressing means of Jacobson (e.g., each page having addressing means) with pixels arranged to display different colors of Drzaic would meet the claimed limitation the third set of addressing means (e.g., third page of Jacobson) being arranged to select one of said three sets of pixels (i.e. any color R, G, B of Drzaic) to be addressed at any given moment as recited in claim. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used pixels arranged with different colors as taught by Drzaic to the pixels arrangement of Jacobson so that the display has superior saturation and brightness with different visual states (see page 4, lines 27-31).

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 9-12, 15, 17, 18, 20 and new claims 31-37 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the reference of Markin has been added for new ground of rejection. In response office action on March 15, 2004, Applicant elected Species F, and stated that "Claims 1, 7-12, 15, 17, 18 read on this species". Thus, only claims 1, 9-12 (7-8 are cancelled), 15, 17, 18, 20 and new claims 31-37 are taking into consideration. The remaining claims are withdraw from consideration.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (703) 308-6603. The examiner can normally be reached on Monday- Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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C. Nguyen  
January 21, 2005



Chanh Nguyen  
Primary Examiner  
Art Unit 2675